

Commissioner for Patents
Page 5

Serial No.: 09/514,141

REMARKS/ARGUMENTS

The number of claims in this application was 11 and as a result of this amendment, 11 claims remain in the application.

The Examiner has rejected claims 1-9 under 35 USC 102(e) as being anticipated by Norris (US patent 5,966,452).

Applicant believes that the Examiner has incorrectly understood the present invention as being directed to the same phase inverted destructive noise cancellation as disclosed in Norris. Norris clearly states in column 2, line 39-50:

It is yet another object of the present invention to provide a sound reduction system capable of producing a phase inverted wave to destructively interfere with an acoustic noise wave

It is a further object of the present invention to provide a sound reduction system capable of creating a phase inverted wave propagating in three dimensional space as opposed to being limited to plane waves.

Still another object of the present invention is to provide a sound reduction system capable of creating a phase inverted wave by stimulating a plasma.

As repeated in Applicant's previous amendments, the principle of phase-inverted destructive noise cancellation technology is to provide an anti-noise signal which has a frequency and amplitude exactly equal but having opposite phase with respect to the unwanted noise sound wave in order to substantially destroy the unwanted sound wave.

The improvement of Norris over the conventional phase-inverted destructive noise cancellation technologies is that his interference sound wave includes not only one component at the primary frequency but all components at a broad frequency range of the noise. However, Norris still follows the principle that the interference sound wave is exactly phase-inverted in comparison with the noise wave (see numerals 26 and 68 in Figure 1 and numerals 34 and 40 in Figure 5) such that the sound energy of the noise wave is substantially offset by the sound energy of the interference sound wave. That means, Norris' interference sound wave includes a plurality of sound components corresponding to the sound components of the noise wave, each pair of the corresponding sound components of the respective interference sound wave and noise sound wave being exactly identical in frequency and amplitude but having opposite phase.

Commissioner for Patents
Page 6

Serial No.: 09/514,151

This is clearly different than the Applicant's invention, as more clearly specified in the amended independent claims 1, 4 and 7.

Norris' interference sound wave must have a dominating primary frequency identical to the dominating primary tone (if any) of a noise and in a phase-inverted condition, in order to achieve his stated objectives. Therefore, Norris' noise cancellation system works on a principle fundamentally different from the principle of the claimed invention and in fact teaches away from the claimed invention. Thus, the Examiner's rejection of independent claims 1, 4 and 7, and dependent claims 2-3, 5-6 and 8-9 is not sustainable, because Norris teaches away from the claim.


The Examiner has rejected claims 10-11 under 35 USC 103(a) as being unpatentable over Norris (US patent 5,966,452) in view of Gliebe (US patent 5,478,199). The Examiner has alleged that Norris does not clearly teach the configuration of the mechanical device which is taught by Gliebe.

Claims 10-11 depend indirectly from claim 7 which is allowable for the reasons set forth above, therefore claims 10-11 are allowable.

No new subject matter has been added. The amendments of the claims are supported in the disclosure, page 16, lines 10-12 and page 17, lines 4-6.

It is believed that this application is now in condition for immediate allowance. Favourable consideration and early issuance of the Notice of Allowance are respectfully solicited.

Respectfully submitted,
Man-Chun TSE

By 
Wayne H. Yan
Registration No. 44,485
Attorney for Applicant

WHY/sa
Address:

OGILVY RENAULT
1981 McGill College Avenue
Suite 1600
Montreal, Quebec H3A 2Y3
Canada

Tel. No: (613) 780-8682
Fax. No: (613) 230-6706